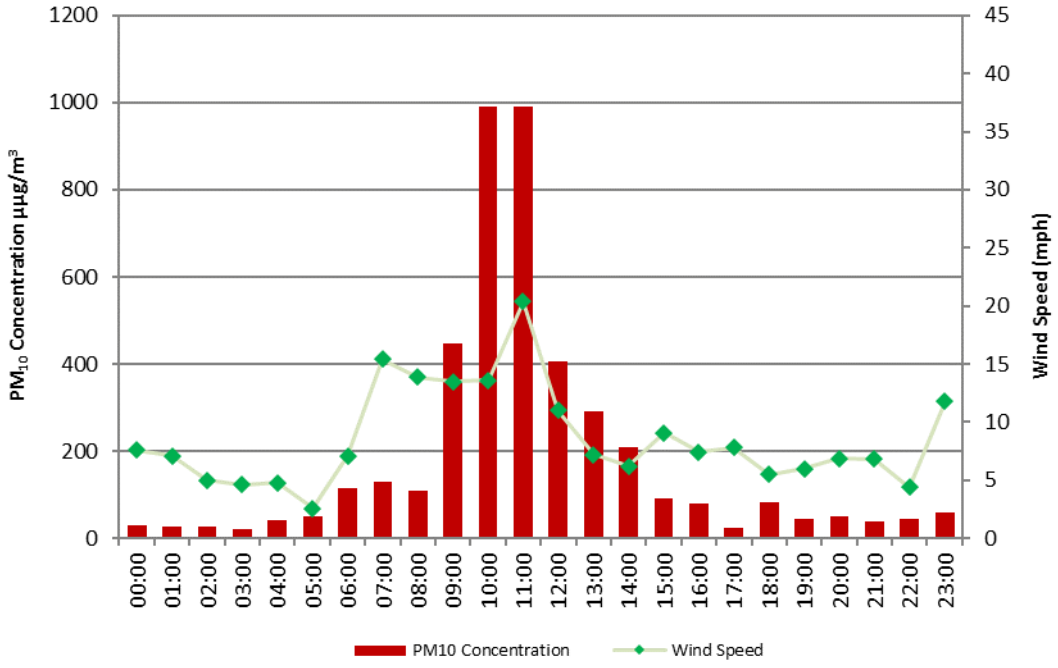
Appendix C
Correlated PM_{10} Concentrations and Winds

The following graphs illustrate the direct correlation between wind speeds[1] and PM_{10} concentrations at select monitoring sites within the Salton Sea Air Basin on June 30, 2015. Note a variety of instruments measure wind speed at different times during any given hour. Therefore, the following graphs reflect the hour of the wind measurement.

IMPERIAL COUNTY SELECT SITES
(FIGURES C-1 to C-3)

FIGURE C-1
NILAND PM_{10} CONCENTRATION AND WIND SPEED CORRELATION



Figs C-1 & C-2: Niland and Brawley sites recorded sudden increased levels of PM_{10} as winds speeds increased during the morning hours on June 30, 2015. Wind data from the EPA's AQS data bank

[1] National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall); https://w1.weather.gov/glossary/index.php?letter=w

FIGURE C-2
NILAND PM_{10} CONCENTRATION AND WIND SPEED CORRELATION

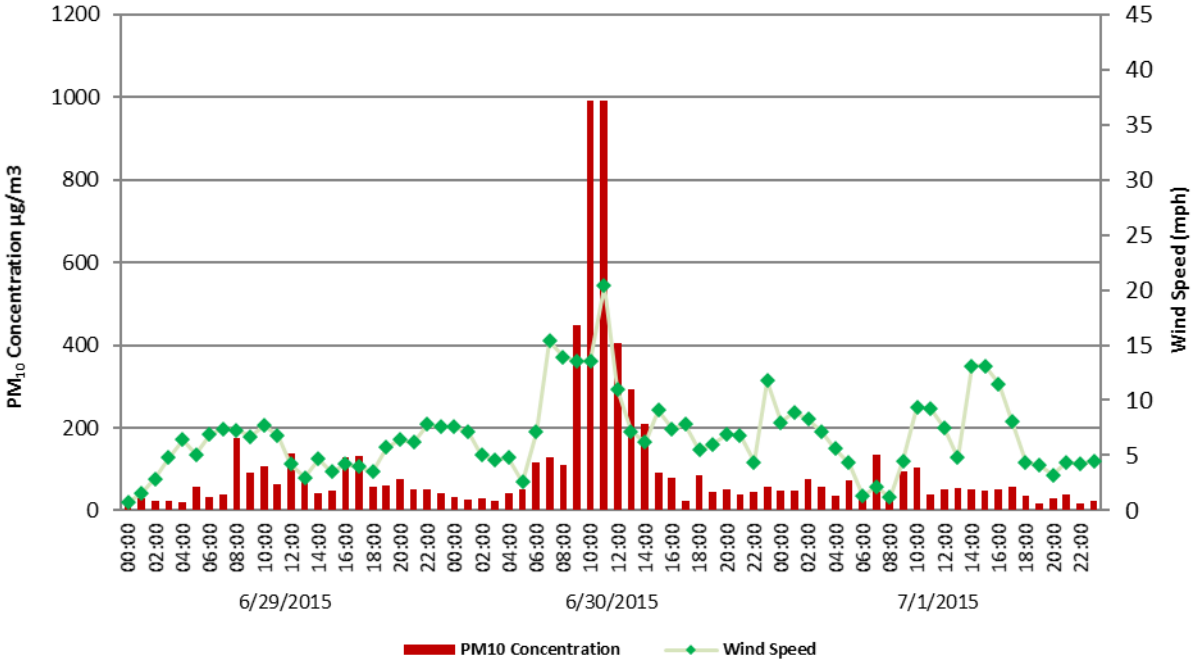
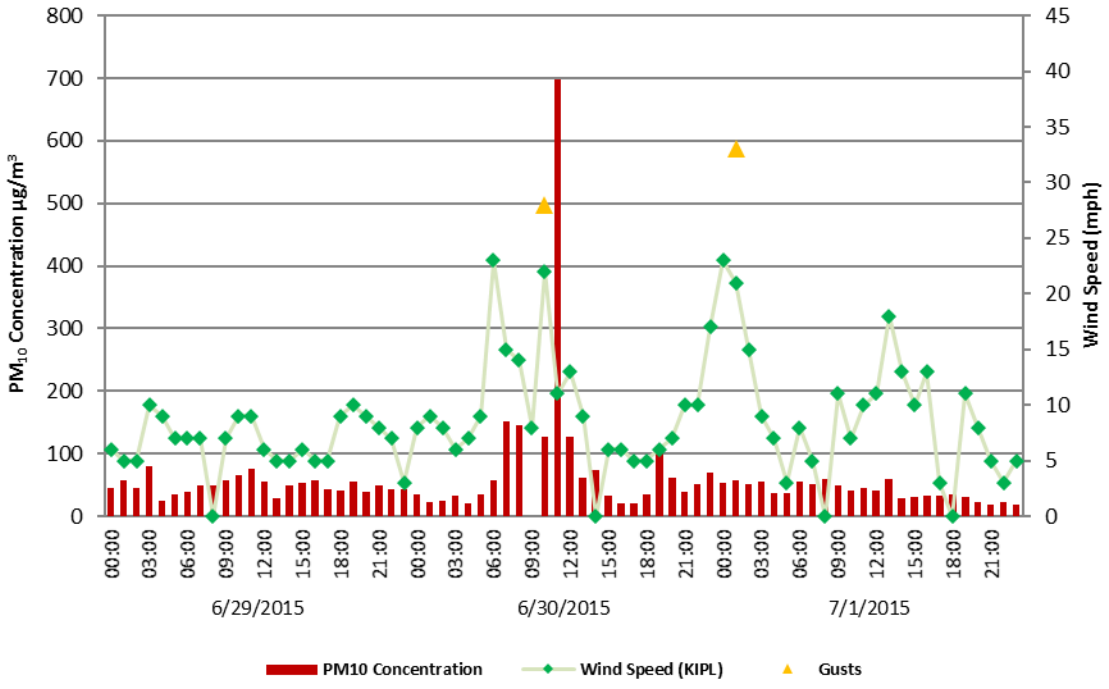


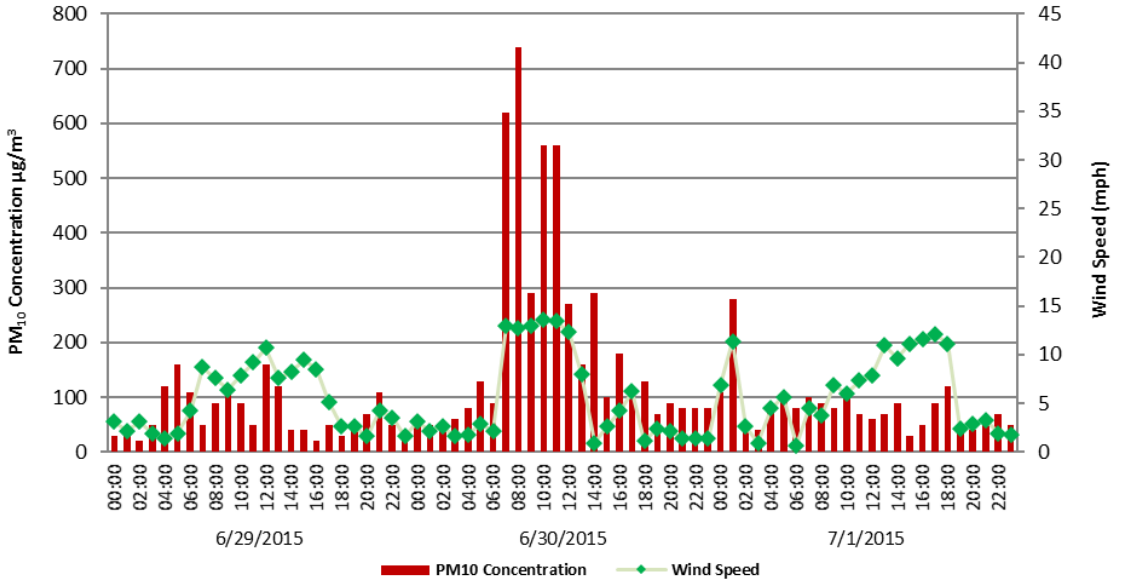
FIGURE C-3
BRAWLEY PM_{10} CONCENTRATION AND WIND SPEED CORRELATION



Figs C-3: Brawley site recorded a single spike of concentrations, but winds remained largely to the east so the station was not effect like Niland. Wind data from the QCLCD

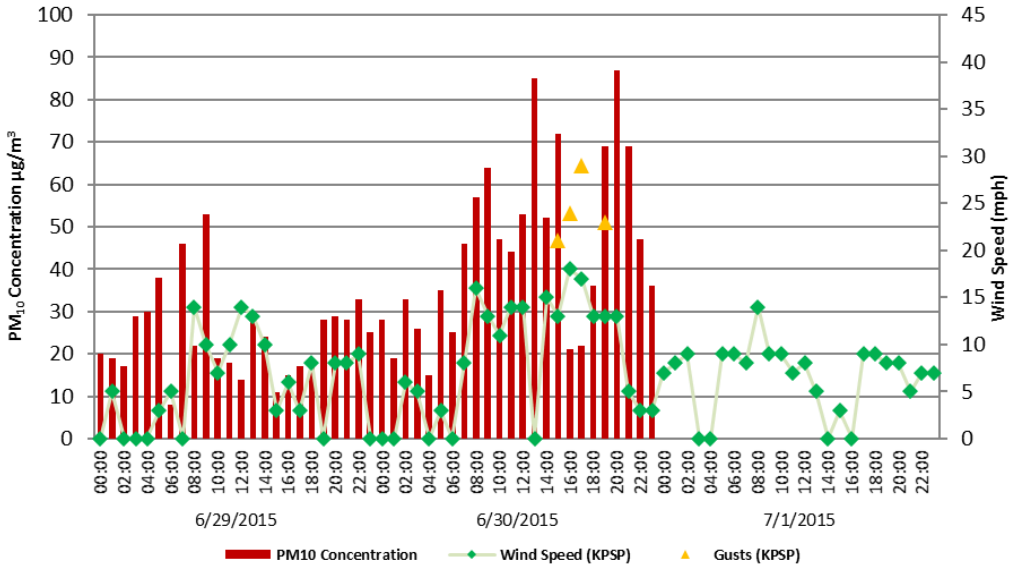
EASTERN RIVERSIDE COUNTY MONITORING SITES

FIGURE C-4
TORRES-MARTINEZ TRIBAL PM_{10} CONCENTRATIONS AND WIND SPEED CORRELATION



Figs C-4: Torres-Martinez felt some influence on concentrations from the monsoonal winds. Wind data from the EPA's AQS data bank

FIGURE C-5
PALM SPRINGS FIRE STATION PM_{10} CONCENTRATION AND WIND SPEED CORRELATION



Figs C-5: Palm Springs Fire Station saw an increase on concentrations in response to elevated winds. Wind data from Palm Springs Airport (QCLCD)

FIGURE C-6
INDIO (JACKSON ST) PM_{10} CONCENTRATION AND WIND SPEED CORRELATION

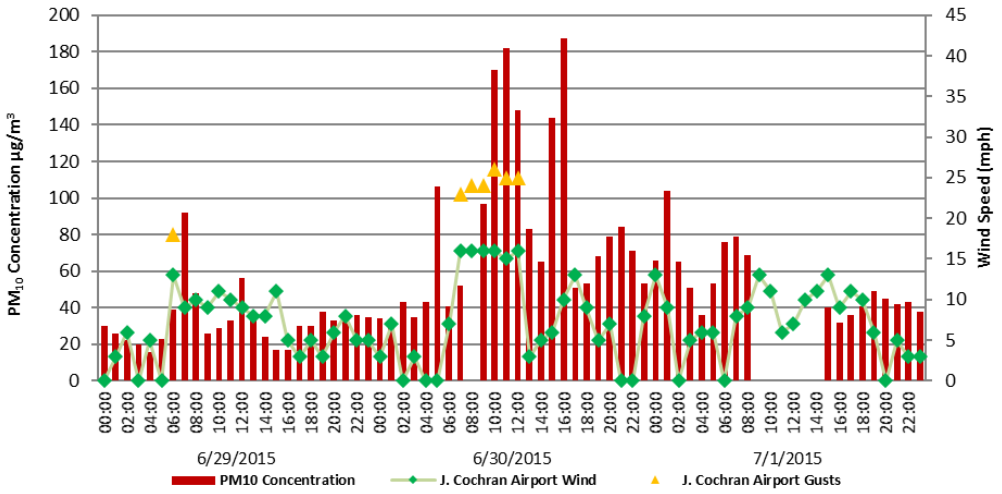


Fig C-6: Indio (Jackson St) experienced an increase in concentrations in response to elevated winds and gusts. Wind data from Jacqueline Cochran Regional Airport (QCLCD)

SOUTHWESTERN ARIZONA MONITORING SITES

FIGURE C-7
YUMA, ARIZONA SUPERSITE PM_{10} CONCENTRATION AND WIND SPEED CORRELATION

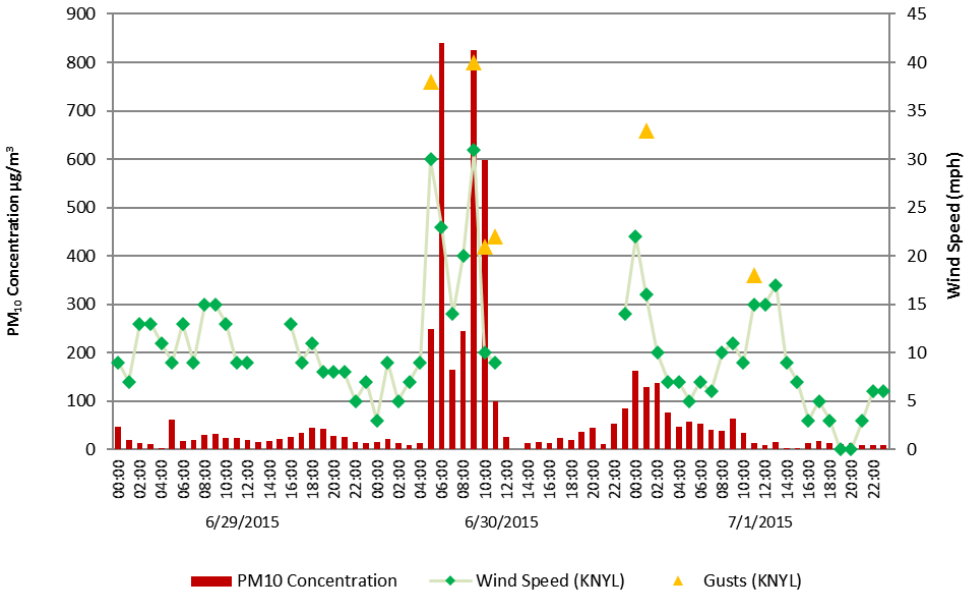


Fig C-7: Yuma, Arizona Supersite showed steep spikes in PM_{10} levels during the high wind event, but was impacted a few hours earlier due to its upstream position. Wind data from Yuma MCAS (QCLCD)